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Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

May 1, 2014

Re: Advance Notice of Proposed Rulemaking for Revision of 52 Pa. Code Chapter 57 Relating to Inspection Requirements for Automatic Splices; L-2014-2400191

This document is being sent in response to the Pennsylvania PUC's solicitation of comments from EDCs and other interested parties that address whether existing regulations in 52 Pa. Code, Chapter 57, relating to electric distribution reliability should be amended to require regular inspections of automatic splices using infrared technology or any other necessary changes related to this matter.

Classic Connectors USA, LLC is a manufacturer of a product called ClampStar® Connector Correctors that are used by electric utilities and contractors to protect overhead splices and connectors, especially automatic splices. ClampStar was developed specifically for the purpose of preventing catastrophic events like the incident that caused the death of Carrie Goretzka. Obviously, we are a commercial entity, as are all of the manufacturers of splices, which might be considered for use. However, we exist specifically for the purpose of improving safety and to provide a high integrity upgrade to aged connectors and damaged conductor, to meet the needs of the substantially increased power demand on existing lines. We exist because the 60 or so utilities that have adopted our product in their standards for both transmission and distribution applications, have done so because they recognize it to be the safest and most economical means that can be effected in the least amount of time with no disruption to service. Our solution also serves to uprate their circuits to meet higher ampacity requirements, improve public safety and extend the life of their system. Our interest in this matter is to assure that the PUC and its members have all the information available based on technical facts, to make a sound decision and to provide the best solution to the general public in the most expedient manner possible.

We will address numbers 1, 7, 14 & 18 in the subject document, which, for your convenience have been pasted below.

- 1. Whether standards should be established by the Commission for inspection, maintenance, repair, and replacement of automatic splice connections. Comments are requested on what, if any, those standards should be; or, alternatively, why you believe no inspection program for automatic splice connections should be implemented by the Commission.*

7. *Are there any limitations to the physical inspection of an automatic splice? If so, what are they?*
14. *If a systematic replacement program were required of every automatic splice connection in an EDC's service territory, either in addition to an inspection program or in the alternative, what would be the optimal replacement schedule and why? What costs would an EDC incur if such a requirement were put into place?*
18. *If automatic splice connection inspections are determined to be impracticable or unreasonable under all the facts, what assurances and/or procedure enhancements can be made or implemented by an EDC to ensure that newly installed automatic splice connections are defect free and installed properly?*

The proactive position that the Pennsylvania PUC has taken to prevent additional tragedies from occurring as a result of failed overhead splices is notable. However, the PUC's position on inspection as a remedy is outdated, unnecessary and expensive. Due to the fact that it is impossible for infrared inspection to identify splices that were installed incorrectly, the only logical course of action as well as the most economical is 'splice correction'. For specific details on the shortcomings of infrared inspection we encourage you to read the enclosed document titled: "*Hangin' Your Repairs on Temperature?*" written by: HOT/SHOT Infrared Inspections, Inc.

Correcting splices instead of inspecting them will eliminate the need to address questions 2,3,4,5,6,9,11 & 12 and will ultimately save money, property, and perhaps lives.

Prior to 2008 the most common options for correcting automatic splices were complete line replacement or replacement of the defective splice with a length of conductor and two splices. Because this procedure was very expensive and time consuming many utilities adopted the practice of using infrared inspection to identify only those splices considered suspect so that a replacement plan could then be put in place to deal with them.

In 2008 a product called ClampStar® was developed to address this issue. Now, instead of spending money and time to inspect, identify and produce an action plan for dealing with automatic splices, simply protecting them with ClampStar® is all that's needed. This avoids the time and money associated with the entire inspection program and anyone at anytime can see that a particular splice has been corrected.

We recommend installing ClampStar's on all splices presently installed in critical locations, and critical service feeders. A "Critical Feeder" is one, that if disrupted, would paralyze essential services required by the population such as fire houses, first response emergency services, hospitals and emergency shelters, police departments, elderly care centers, water utilities, sewage treatment facilities, public transit systems, and other essential government operations. "Critical Locations" are those where a catastrophic failure (meaning an energized conductor falling to the ground) would carry a high probability of serious personal injury or death to a person. Such Critical Locations would be areas of high congestion of pedestrian traffic, such as; near hospitals, schools, playgrounds, major highways, parking lots of malls or shopping centers, or public gatherings such as sports arenas or entertainment complexes, etc. This approach will

not only save a tremendous amount of money but by eliminating the expense of the splice inspection program a substantial amount of time, and therefore the associated risk, will also be eliminated.

If the PUC members agree that a systematic splice replacement program is recommended and cutting out the splice and replacing it with a length of conductor and two splices is one method being considered please be sure to compare the complete cost of each process including the extent of time required.

Also, it's important to note that all splices are rated for use on NEW conductor but not ALL splices are rated for use on weathered conductor. Therefore, the great majority of compression splices installed on weathered conductor will have a significantly reduced life expectancy.

The president of our company, Mr. Carl R. Tamm, having been involved in the forensic analysis of hundreds of failed connectors, is an internationally recognized expert in the field of overhead electrical connectors. He routinely teaches a class on the subject affectionately known as "Kunneker Fizzix". In fact, some of his articles have appeared in many top rated, industry trade publications and Mr. Tamm is routinely asked to speak on the subject of connectors. Included with this document is one of his articles titled "Automatic Splices – The Inside Story", which specifically addresses numbers 7 & 18 in the subject document. If you're short on time just read page 9.

I have spoken with Mr. Tamm and he assures me that if you would like, he is willing to travel to Pennsylvania to meet with you and anyone else in your organization to discuss this subject in detail. This meeting would be technical in nature and not a commercial for ClampStar. He will be glad to share with you, a comprehensive history of the ANSI C119.4 Standard which specifically addresses performance requirements for utility class overhead connectors, and clarify the critical difference and explain the technical basis of Class "A" vs. Class "AA" and that relationship to splice application, as well as the historical engineering parameters applied to splice design and the development changes that have occurred over the past several decades. Perhaps a PowerPoint presentation on the subject might be beneficial?

We feel it's our duty to contact you with this vital information and stand ready to assist you in any way necessary to help further your cause to protect the public.

Please do not hesitate to contact us if you have any questions or if you would like to schedule a meeting.

Regards,

Chris Costanzo



Director, Marketing and Communication

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